What Is Claimed Is:

1. A method of calibrating an exhaust gas recirculation valve, comprising the steps of:
providing a valve portion including a valve seat and a valve member;
providing a linear actuator including a shaft and a rotary motor;
displacing the shaft towards the valve portion using the actuator; and
contacting the shaft with the valve portion to locate the position of the valve member relative to the valve seat.

2. The method of claim 1, wherein the contacting steps locates a closed valve position.

3. The method of claim 2, wherein the providing a linear actuator includes providing a disc-shaped element disposed at the end of the shaft.

4. The method of claim 1, wherein the displacing step includes measuring a displacement of the shaft.

5. The method of claim 4, wherein the contacting step includes detecting an absence of displacement of the shaft.

6. The method of claim 5, wherein the detecting an absence of displacement for a period of 100 milliseconds.

7. The method of claim 1, wherein the actuator includes a sensor for determining the position of the shaft and the actuator includes a rotation to displacement coupling between the shaft and the motor's rotor.

8. The method of claim 1, wherein the motor has an axis of rotation and the valve portion includes a stem having a longitudinal axis that is substantially parallel to the axis of rotation, the stem having a first end that is fixed to the valve member and a second end adapted for being in contact with the shaft.

9. The method of claim 8, wherein the providing step further includes providing a linear spring having a second end coupled to the stem and a first end disposed between the stem second end and the valve member.

10. The method of claim 1, wherein the valve portion includes a spring that is a linear compression spring and the shaft is decoupled from the spring.

11. A method for finding a closed valve position of an exhaust gas recirculation valve, comprising the steps of:

providing a valve portion including a valve member engaged with a valve seat;

providing a linear actuator for displacing the valve member, wherein the actuator includes a shaft powered by a rotary motor; and

displacing the shaft from a first position to a second position corresponding respectively to the shaft being decoupled from the valve portion and coupled to the valve portion.

12. The method of claim 11, wherein the actuator includes a sensor for determining the position of the shaft.

13. The method of claim 12, wherein the motor has an axis of rotation and the valve portion includes a stem having a longitudinal axis that is substantially parallel to the axis of rotation, the stem having a first end that is fixed to the valve member and a second that is spaced from, and in contact with the shaft when the shaft is in the respective first and second positions.

14. The method of claim 13, wherein the providing step further includes providing a linear spring having a second end coupled to the stem and a first end disposed between the stem second end and the valve member.

15. The method of claim 11, wherein the providing step includes providing a spring that is a linear compression spring and the shaft is decoupled from the spring.